Remarks/Arguments:

Of pending claims 10-23, 25-63, 65 and 66, claims 10, 12, 14, 16, 17, 20, 22, 38-63, 65 and 66 have been withdrawn.

Applicants appreciate the courtesy extended to their representatives during the telephone interview of September 11, 2009. During the course of the interview, Applicants' representatives discussed differences between Applicants' claim 11 and Gruzdev et al. (U.S. 6,868,179). The Examiner agreed that Gruzdev et al. do not teach a height generation instrument which assigns first and second corrected chrominance signals to a region of adjacent pixels having a predetermined color component, according to a predetermined assignment pattern.

Claims 25 and 37 have been rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In particular, the Examiner asserts that, although claims 25 and 37 recite a "computer readable medium," paragraph [0435] of the subject specification discloses a "recording medium" which includes a "transmission medium." The Examiner, thus, argues that the disclosed "transmission medium" is non-statutory. Paragraph [0435] has been amended to remove reference to transmission media. Accordingly, Applicants respectfully request that the rejection of claims 25 and 37 under 35 U.S.C. § 101 be withdrawn.

Claims 11, 15, 18, 23, 25, 26, 31, 33, 34, 36 and 37 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Gruzdev et al. (U.S. 6,868,179) in view of Sakata (US 5,428,385) and Higgins (U.S. 7,176,935). Reconsideration is respectfully requested for the reasons set forth below.

Claim 11 includes features neither disclosed nor suggested by the cited art, namely:

> ... a color correction instrument which applies ... each of a) a first color correction ... to form a first corrected chrominance signal and b) a second color correction... to form a second corrected chrominance signal, when a predetermined color component is detected ...
>
> ... a height generation instrument which generates, when a region of adjacent pixels having said

> predetermined color component is detected, a saturation height difference for the pixels in said region by assigning each of said first corrected chrominance signal and said second corrected chrominance signal to the pixels of said region according to a predetermined assignment pattern, the predetermined assignment pattern alternating said first and second corrected chrominance signals over one or more of said pixels ... (Emphasis Added)

Claims 23 and 25 include similar recitations.

Gruzdev et al. disclose a method of correcting image saturation in a chromaticity color space. Saturated colors are defined and an overall correction of the saturation of colors in the image is performed using a table of corrections. (Abstract). An optimal saturation is defined using an average color ratio, R, for all colors in a high saturation region. (Col. 6, line 62 - Col. 7, line 37). Gruzdev et al. also teach using different color tables for "normal" colors and for predetermined color ranges (e.g., sky colors, grass colors, skin tone colors, etc.). (Col. 7, line 60 - Col. 8, line 17). Gruzdev teaches calculation of overall image chroma scale factors. For every pixel with a high chroma color, a chroma scale factor is computed using one value from a table. The scale factor is then averaged to give one overall value for the whole image. A separate table is used for normal colors and skin tone colors. (Col. 9, lines 32-53).

As acknowledged by the Examiner on p. 4 of the Office Action, Gruzdev et al. do not disclose or suggest a color correction instrument that forms each of a) a first corrected chrominance signal to increase saturation of a chrominance signal by decreasing a value of the chrominance signal and b) a second corrected chrominance signal to increase a white color component of the chrominance signal by increasing the value of the chrominance signal, as required by claim 11. In addition, as acknowledged by the Examiner on page 5 of the Office Action, Gruzdev et al. do not disclose or suggest a display apparatus which receives chrominance signals and includes pixels configured to display four colors, as required by claim 11.

Furthermore, as acknowledged by the Examiner during the telephone interview, Gruzdev et al. do not disclose or suggest a height generation instrument which generates a saturation height difference for a region of adjacent pixels having the predetermined color component, by assigning each of the first and second corrected

chrominance signals to the pixels of the region according to a predetermined assignment pattern, as required by claim 11 (emphasis added). Gruzdev et al. only teach: 1) applying an average color ratio correction for colors in a high saturation region using a table and 2) calculation of a single overall image chroma scale factor for normal and skin tone colors. Thus, for a region of adjacent pixels within a color range (normal or skin tone colors), Gruzdev et al. calculate one value for correction. Accordingly, Gruzdev et al. do not include all of the features of claim 11.

Sakata discloses that any color can be represented by a vectorial addition of positive fractions of red, green and blue primary colors. Sakata also teaches that to detect the color yellow, an equation based on red, green and blue unit color vectors may be used to define a region of color vector diagram representing yellow. (Col. 5, lines 16-60).

Sakata, however, does not teach a color correction instrument for forming first and second corrected chrominance signals and a height generation instrument which generates a saturation height difference for pixels in a region by assigning the first and second corrected chrominance signals to the pixels of the region according to a predetermined assignment pattern, as required by claim 11. Sakata is silent regarding these features. Thus, Sakata does not make up for the deficiencies of Gruzdev et al.

Higgins discloses, in Fig. 1, system 100 that provides gamut expansion and/or conversion of chroma components. (Col. 5, lines 18-47). Higgins, however, does not disclose or suggest a color correction instrument for forming each of first and second corrected chrominance signals and a height generation instrument which generates a saturation height difference for adjacent pixels in a region by assigning the first and second corrected chrominance signals to the pixels of the region according to a predetermined assignment pattern, as required by claim 11. Higgins is silent regarding these features. Thus, Higgins does not make up for the deficiencies of Gruzdev et al. and Sakata. Accordingly, allowance of claim 11 is respectfully requested.

Although not identical to claim 11, claims 23 and 25 include features similar to claim 11. Accordingly, allowance of claims 23 and 25 is respectfully requested for at least the same reasons as claim 11.

Claims 15 and 18 include all of the features of claim 11 from which they depend. Accordingly, claims 15 and 18 are also patentable over the cited art.

Claims 26, 36 and 37, although not identical to claim 11 include features similar to claim 11 which are neither disclosed nor suggested by the cited art. Namely, forming each of a) a first corrected chrominance signal to increase saturation of a chrominance signal by decreasing a value of the chrominance signal and b) a second corrected chrominance signal to increase a white color component in the chrominance signal by increasing the value of the chrominance signal. As described above, these features are neither disclosed nor suggested by the cited art. In addition, claims 26, 36 and 37 also include the feature of performing control of color correction so that each of the first and second corrected chrominance signals are alternately displayed in a predetermined size of plural units over a predetermined region. Neither Gruzdev et al., Sakata, Higgins, nor their combination disclose or suggest these features. Accordingly, allowance of claims 26, 36 and 37 is respectfully requested.

Claims 31, 33 and 34 include all of the features of claim 26 from which they depend. Accordingly, claims 31, 33 and 34 are also patentable over the cited art.

Claims 13, 19, 21, 27-30, 32 and 35 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Gruzdev et al. in view of Sakata and Higgins and further in view of Okada et al. (U.S. 6,766,052). These claims, however, include all of the features of respective claims 11 and 26 from which they depend. Okada et al. do not make up for the deficiencies of Gruzdev et al., Sakata and Higgins because they do not disclose or suggest forming each of first and second corrected chrominance signal (as required by claims 11 and 26); generating a saturation height difference for adjacent pixels in a region by assigning each of the first and second corrected chrominance signals to the pixels of the region according to a predetermined assignment pattern (as required by claim 11); or controlling color correction so that each of the first and second corrected chrominance signals are alternately displayed in

a predetermined size of pixel units (as required by claim 26). Accordingly, claims 13, 19, 21, 27-30, 32 and 35 are also patentable over the cited art for at least the same reasons as respective claims 11 and 26.

In view of the foregoing amendments and remarks, the above-identified application is in condition for allowance which action is respectfully requested.

Respectfully submitted,

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